

#3/1,
12-5-0,
R.P.

214090US-0PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF: :
HEIKO MAAS ET AL. :
SERIAL NO: NEW US PCT APPLN. : ATTN: APPLICATION BRANCH
(Based on PCT/EP00/02902)
FILED: HEREWITH :
FOR: METHOD FOR PRODUCING
ALKAPOLYENYL COMPOUNDS
USING CERTAIN COCATALYSTS

PRELIMINARY AMENDMENT

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

Prior to examination on the merits, please amend the above-identified application as follows:

IN THE SPECIFICATION

Please delete the title on Page 1, lines 1-2 and replace with the following title.

Q1
METHOD FOR PRODUCING ALKAPOLYENYL COMPOUNDS USING CERTAIN
COCATALYSTS.

13 IN THE CLAIMS

Please cancel Claims 4-13.

Please add new Claims 14-25.

R. Keys
8/24/04

A2 ~~12.14~~ ~~13~~ 14. (New) A process as claimed in claim 1, wherein hydrogen chloride is used in form of hydrochloric acid.

~~12.14~~ ~~14~~ 15. (New) A process as claimed in claim 1, wherein the amount of cocatalyst is from 5 to 10^3 mol per gram atom of rhodium.

~~12.14~~ ~~15~~ 16. (New) A process as claimed in claim 1, wherein, in addition, hydrogen is added to the reaction medium.

~~12.14~~ ~~16~~ 17. (New) A process as claimed in claim 1, wherein, in addition, at least one organic halide is dissolved in the reaction medium.

~~12.14~~ ~~17~~ 18. (New) A process as claimed in claim 1, wherein R^1 is C_1 - C_6 -alkyl or phenyl.

~~12.14~~ ~~18~~ 19. (New) A process as claimed in claim 18, wherein R^1 is methyl.

~~12.14~~ ~~19~~ 20. (New) A process as claimed in claim 1, wherein R^2 , R^3 , R^4 , R^5 , R^6 , R^7 and R^8 are hydrogen.

~~12.14~~ ~~20~~ 21. (New) A process as claimed in claim 1, wherein R^1 is C_1 - C_6 -alkyl or phenyl, and R^2 , R^3 , R^4 , R^5 , R^6 , R^7 and R^8 are hydrogen.

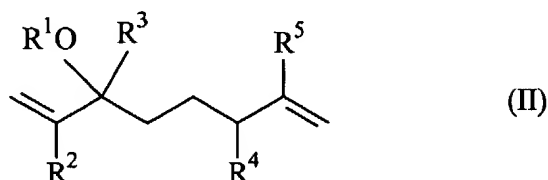
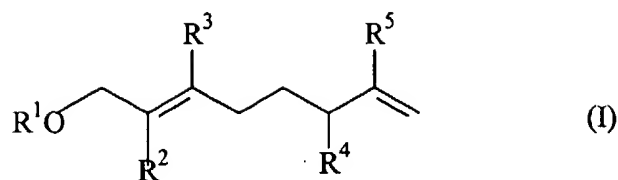
~~12.14~~ ~~21~~ 22. (New) A process as claimed in claim 21, wherein R^1 is methyl.

~~12.14~~ ~~22~~ 23. (New) A process as claimed in claim 1, wherein the rhodium compound is

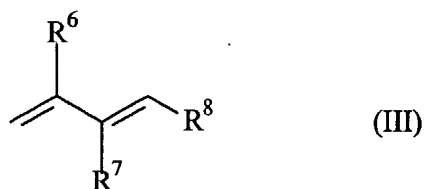
selected from rhodium(III) salts, in particular rhodium trichloride, and π -allyl complexes of rhodium, in particular bis(π -crotyl)tetrachloro(butadiene)dirhodium.

~~12.14~~ ~~23~~ 24. (New) A method for cocatalyzing the homogeneously catalyzed reaction, carried out in the presence of rhodium compounds, of 1-substituted alka-2,7-dienes of the formula I and/or 3-substituted alka-1,7-dienes of the formula II,

Q2 cont.



where R¹ is hydrogen or C₁-C₆-alkyl, C₅-C₈-cycloalkyl, C₁-C₆-alkanoyl, C₆-C₁₂-aryloyl or C₇-C₁₈-aralkyl each of which may be unsubstituted or monosubstituted, disubstituted or trisubstituted by hydroxy, C₁-C₆-alkoxy, C₁-C₆-alkanoyloxy and/or halogen, and R², R³, R⁴ and R⁵ are, independently of one another, hydrogen or C₁-C₆-alkyl, with 1,3-conjugated dienes of the formula III



where R⁶ and R⁷ are, independently of one another, hydrogen or C₁-C₆-alkyl, and R⁸ is hydrogen, C₁-C₆-alkyl or C₂-C₆-alkenyl,

which method comprises dissolving hydrogen chloride, GeCl₄ and/or WCl₆ in the reaction mixture.

2.1.24

24 25

25. (New) A method for preparing a surface-active material, which method

comprises providing alkapolyenyl compounds obtained by a process as claimed in claim 1